UNITED STATES PATENT AND TRADEMARK OFFICE

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ART UNIT	PAPER NUMBER
2136	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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	Application No.	Applicant(s)
Office Action Summary	10/733,666	NAFTALI, AMIR
	Examiner	Art Unit	
	OSCAR A. LOUIE	2136	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _25 January 2008_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-29,31-43 and 45-56_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-29, 31-43, and 45-56_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

This final action is in response to the amendment filed on 01/25/2008. In light of the applicant's amendments, the examiner hereby withdraws his previous Specification Objections regarding the acronyms, hyperlinks, and trademarks. The examiner acknowledges the cancellation of Claims 30, 44, & 57. Claims 1-29, 31-43, & 45-56 are pending and has/have been considered as follows.

Specification

1.   The disclosure is objected to because of the following informalities:

-    Page 11 paragraph 49 lines 1-7 of the disclosure recites, "A "computer-readable medium" for purposes of embodiments of the present invention may be any medium that can contain, store, communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, system or device. The computer readable medium can be, by way of example only but not by limitation, an electronic, magnetic, optical, electromagnetic, infrared, or semiconductor system, apparatus, system, device, propagation medium, or computer memory," which is unclear and appears to include non-statutory subject matter (i.e. carrier waves or other transmission mediums for storage). Appropriate correction is required.

-    The examiner suggests removal of "...communicate, propagate, or transport the program for use by or in connection with the instruction execution system, apparatus, system or device..." and "...infrared..." and "...propagation medium..." to avoid 35 U.S.C. 101 and to clarify any indefiniteness as to which parts define "a computer-readable storage medium."

Claim Objections

2.   Claims 1, 13, 19, 20, 29, 31, 38, 43, 45, 51, & 56 are objected to because of the following informalities:

-      Claim 1

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3.   The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4.   Claims 1-29, 31-43, & 45-56 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

-      The examiner notes that it appears that the applicant does not have support for the amended "item(s)" throughout the claims language. However, the examiner providing the broadest most reasonable interpretation has interpreted "item(s)" to include any information included in a request or a request itself for the considerations below.

Claim Rejections - 35 USC § 101

5.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 29, 43 & 56 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory

subject matter.

-   Claims 29, 43 & 56 recite, "a computer-readable storage medium…" However, the applicant has not

    clearly defined in their specification that their computer-readable storage medium does not include non-

    statutory subject matter as in accordance with 35 U.S.C. 101 (i.e. carrier waves or other transmission

    mediums).

Claim Rejections - 35 USC § 102

6.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the

rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7.   Claims 1, 9, 11-20, 28, 29, 31, 33, 43, 45, 50, & 56 are rejected under 35 U.S.C. 102(b) as being

anticipated by L. Blunk & J. Vollbrecht (RFC 2284).

Claim 1:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process

of a transmission control protocol, wherein a first processor attempts to establish a communication over a

network, the method executing in a second processor comprising,

-   "creating an authentication session item in a first portion of transmission control protocol data" (i.e.

    "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves

    to indicate what is being requested") [page 5];

- "the authentication session item is issued to start an authentication session" (i.e. "The authenticator

  MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "sending the first portion of transmission control protocol data to the first processor" (i.e. "The Request

  packet is sent by the authenticator to the peer") [page 5].

Claim 9:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process

of a transmission control protocol, wherein a first processor attempts to establish a communication over a

network, the method executing in a second processor, as in Claim 1 above, further comprising,

- "the authentication session includes an Extensible Authentication Protocol (EAP) session" (i.e. "The

  PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which

  supports multiple authentication mechanisms") [page 3];

Claim 11:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process

of a transmission control protocol, wherein a first processor attempts to establish a communication over a

network, the method executing in a second processor, as in Claim 1 above, further comprising,

- "the first processor includes a client process" (i.e. "peer - The other end of the point-to-point link; the

  end which is being authenticated by the authenticator") [page 3];

Claim 12:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process

of a transmission control protocol, wherein a first processor attempts to establish a communication over a

network, the method executing in a second processor, as in Claim 1 above, further comprising,

- "the second processor includes a server process" (i.e. "authenticator - The end of the link requiring the authentication. The authenticator specifies the authentication protocol to be used in the Configure-Request during Link Establishment phase") [page 2];

Claim 13:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes comprising,

- "encapsulating an authentication session item within a TCP session request" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "wherein the authentication session item is used to start an authentication session" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "sending the authentication session request during connection establishment" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 14:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 13 above, further comprising,

- "the step of encapsulating includes a substep of including an authentication session request in a transfer of data indicating a TCP session handshake" (i.e. "Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests") [page 5].

Claim 15:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second processes, as in Claim 14 above, further comprising,

- "the authentication session item includes a value in a TCP segment header" (i.e. "The authenticator

    MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 16:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second

processes, as in Claim 15 above, further comprising,

- "a first value is set for data from the second process to the first process" (i.e. "The Request packet is sent

    by the authenticator to the peer") [page 5];

- "a second value is set for data from the first process to the second process" (i.e. "The peer MUST send a

    Response packet in reply to a Request packet") [page 6].

Claim 17:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second

processes, as in Claim 14 above, further comprising,

- "the authentication session item includes a TCP option" (i.e. "Type - The Type field is one octet. This

    field indicates the Type of Request or Response") [page 6].

Claim 18:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second

processes, as in Claim 17 above, further comprising,

- "the TCP option includes an octet" (i.e. "The Type field is one octet") [page 6].

Claim 19:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session between first and second

processes, as in Claim 13 above, further comprising,

- "an authentication session entered as a result of using the authentication session item includes an Extensible Authentication Protocol (EAP) session" (i.e. "The PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which supports multiple authentication mechanisms") [page 3].

Claim 20:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network comprising,

- "an authentication session requestor for creating an authentication session item in a first portion of transmission control protocol data" (i.e. "authenticator - The end of the link requiring the authentication. The authenticator specifies the authentication protocol to be used in the Configure-Request during Link Establishment phase") [page 2];
- "the authentication session item is used to start an authentication session" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];
- "a transmitter for sending the first portion of transmission control protocol data to the first processor during the connection establishment process" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 28:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 20 above, further comprising,

- "the authentication session includes an Extensible Authentication Protocol (EN) session" (i.e. "The PPP Extensible Authentication Protocol (EAP) is a general protocol for PPP authentication which supports multiple authentication mechanisms") [page 3].

Claim 29:

L. Blunk & J. Vollbrecht disclose a computer-readable storage medium including instructions for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network comprising,

- "one or more instructions for creating an authentication session item in a first portion of transmission control protocol data" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested") [page 5];

- "the authentication session item is used to start an authentication session" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "one or more instructions for sending the first portion of transmission control protocol data to the first processor during the connection establishment process" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 31:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the method executing in the first processor comprising,

- "sending a request to establish a transmission session" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested") [page 5];

- "receiving an authentication session request during the connection establishment process" (i.e. "The peer

   MUST send a Response packet in reply to a Request packet") [page 6];

- "conducting authentication session communications during the connection establishment process" (i.e.

   "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 33:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication with a second processor over a network, the method executing in the first processor, as in Claim

31 above, further comprising,

- "the step of receiving an authentication session request includes a substep of receiving the authentication

   session request in a first portion of transmission control protocol data" (i.e. "Responses MUST only be

   sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the

   Response MUST match that of the Request") [page 5].

Claim 43:

L. Blunk & J. Vollbrecht disclose a computer-readable storage medium including instructions for initiating an

authentication session in a connection establishment process of a transmission control protocol, wherein a first

processor attempts to establish a communication with a second processor over a network, the instructions

executed by the first processor comprising,

- "one or more instructions for sending a request to establish a transmission session" (i.e. "The Request

   packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate

   what is being requested") [page 5];

- "one or more instructions for receiving an authentication session request during the connection

  establishment process" (i.e. "The peer MUST send a Response packet in reply to a Request packet")

  [page 6];

- "one or more instructions for conducting authentication session communications during the connection

  establishment process" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 45:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection

establishment process of a transmission control protocol between first and second processors communicating

via a network comprising,

- "requesting, with the first processor, to establish a transmission session" (i.e. "The Request packet is

  sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is

  being requested") [page 5];

- "creating, with the second processor, an authentication session request in a first portion of transmission

  control protocol data" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request

  has a type field which serves to indicate what is being requested") [page 5];

- "the authentication session request indicates a request to start an authentication session" (i.e. "The

  authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "sending the first portion of transmission control protocol data from the second processor to the first

  processor" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type

  field which serves to indicate what is being requested") [page 5];

- "receiving an authentication session request during the connection establishment process" (i.e. "Responses MUST only be sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the Response MUST match that of the Request") [page 5];

- "conducting authentication session communications during the connection establishment process" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim 50:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 45 above, further comprising,

- "a first value is set in the first portion of transmission control protocol data for data sent from the second processor to the first processor" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5];

- "a second value is set in the first portion of transmission control protocol data for data from the first processor to the second processor" (i.e. "The peer MUST send a Response packet in reply to a Request packet") [page 6].

Claim 56:

L. Blunk & J. Vollbrecht disclose a computer-readable storage medium including instructions for initiating an authentication session in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication with a second processor over a network, the instructions executed by the first processor comprising,

- "one or more instructions for requesting, with the first processor, to establish a transmission session" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested") [page 5];

- "one or more instructions for creating, with the second processor, an authentication session item in a first portion of transmission control protocol data" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested") [page 5];

- "the authentication session item is used to start an authentication session" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "one or more instructions for sending the first portion of transmission control protocol data from the second processor to the first processor, during the connection establishment process" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5];

- "one or more instructions for receiving the first portion of transmission control protocol data at the first processor" (i.e. "The peer MUST send a Response packet in reply to a Request packet") [page 5];

- "one or more instructions for conducting authentication session communications" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

Claim Rejections - 35 USC § 103

8.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9.   Claims 2-8, 21-27, 32, 34-42, 46-49, & 51-55 are rejected under 35 U.S.C. 103(a) as being unpatentable

over <u>L. Blunk & J. Vollbrecht</u> (RFC 2284) in view of <u>Mullen et al.</u> (US-2002/0147909-A1).

Claim 2:

<u>L. Blunk & J. Vollbrecht</u> disclose a method for providing authentication in a connection establishment process

of a transmission control protocol, wherein a first processor attempts to establish a communication over a

network, the method executing in a second processor, as in Claim 1 above, but they do not disclose,

-      "the transmission control protocol includes standard TCP"

however, <u>Mullen et al.</u> do disclose,

-      "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

        (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "the transmission control protocol includes standard TCP," in the invention as disclosed by <u>L. Blunk</u>

<u>& J. Vollbrecht</u> since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it

would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 3:

<u>L. Blunk & J. Vollbrecht</u> and <u>Mullen et al.</u> disclose a method for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, the method executing in a second processor, as in Claim 2 above, but <u>L. Blunk</u>

<u>& J. Vollbrecht</u> do not disclose,

- "the first portion of transmission control protocol data includes a request to establish a standard TCP connection"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "the first portion of transmission control protocol data includes a request to establish a standard TCP connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 4:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 3 above, further comprising,

- "the first portion of transmission protocol data includes a segment used in a three-way handshake" (i.e. "Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests") [page 9].

Claim 5:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, the method executing in a second processor, as in Claim 2 above, further

comprising,

- "the authentication session item includes a value in a TCP segment header" (i.e. "The authenticator

   MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 6:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, the method executing in a second processor, as in Claim 5 above, further

comprising,

- "a first value is set for data from the second processor to the first processor" (i.e. "The Request packet is

   sent by the authenticator to the peer") [page 5];

- "a second value is set for data from the first processor to the second processor" (i.e. "The peer MUST

   send a Response packet in reply to a Request packet") [page 6].

Claim 7:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 2 above, further comprising,

- "the authentication session item includes a TCP option" (i.e. "Type - The Type field is one octet. This field indicates the Type of Request or Response") [page 6].

Claim 8:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 7 above, further comprising,

- "the option includes an octet" (i.e. "The Type field is one octet") [page 6].

Claim 21:

L. Blunk & J. Vollbrecht disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 20 above, but they do not disclose,

- "the transmission control protocol includes standard TCP"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "the transmission control protocol includes standard TCP," in the invention as disclosed by L. Blunk

& J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it

would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 22:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, as in Claim 21 above, but L. Blunk & J. Vollbrecht do not disclose,

- "the first portion of transmission control protocol data includes a request to establish a standard TCP

    connection"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

    (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "the first portion of transmission control protocol data includes a request to establish a standard TCP

connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for

PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art

to put these aspects in use together.

Claim 23:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, as in Claim 22 above, further comprising,

- "the first portion of transmission protocol data includes a segment used in a three-way handshake" (i.e.

    "Additional Request packets MUST be sent until a valid Response packet is received, or an optional

retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests") [page 9].

Claim 24:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 21 above, further comprising,

- "the authentication session item includes a value in a TCP segment header" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 25:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 24 above, further comprising,

- "a first value is set for data from the second processor to the first processor" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5];

- "a second value is set for data from the first processor to the second processor" (i.e. "The peer MUST send a Response packet in reply to a Request packet") [page 6].

Claim 26:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, as in Claim 21 above, further comprising,

- "the authentication session item includes a TCP option" (i.e. "Type - The Type field is one octet. This field indicates the Type of Request or Response") [page 6].

Claim 27:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for providing authentication in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication over a network, as in Claim 26 above, further comprising,

-     "the option includes an octet" (i.e. "The Type field is one octet") [page 6].

Claim 32:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection

establishment process of a transmission control protocol, wherein a first processor attempts to establish a

communication with a second processor over a network, the method executing in the first processor, as in Claim

31 above, but they do not disclose,

-     "the step of sending a request includes a substep of sending a standard transmission control protocol

      (TCP) request"

however, Mullen et al. do disclose,

-     "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

      (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "the step of sending a request includes a substep of sending a standard transmission control protocol

(TCP) request," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means

for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the

art to put these aspects in use together.

Claim 34:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol, wherein a first processor attempts to

establish a communication with a second processor over a network, the method executing in the first processor,

as in Claim 32 above, but L. Blunk & J. Vollbrecht do not disclose,

- "a first portion of transmission control protocol data includes a request to establish a standard TCP

    connection"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

    (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "a first portion of transmission control protocol data includes a request to establish a standard TCP

connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for

PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art

to put these aspects in use together.

Claim 35:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol, wherein a first processor attempts to

establish a communication with a second processor over a network, the method executing in the first processor,

as in Claim 34 above, further comprising,

- "the first portion of transmission protocol data includes a segment used in a three-way handshake" (i.e.

    "Additional Request packets MUST be sent until a valid Response packet is received, or an optional

    retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to

    distinguish them from new Requests") [page 9].

Claim 36:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol, wherein a first processor attempts to

establish a communication with a second processor over a network, the method executing in the first processor,

as in Claim 34 above, further comprising,

- "the authentication session request includes setting a value in a TCP segment header" (i.e. "The

    authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 37:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol, wherein a first processor attempts to

establish a communication with a second processor over a network, the method executing in the first processor,

as in Claim 36 above, further comprising,

- "a first value is set for data from the second processor to the first processor" (i.e. "The Request packet is

    sent by the authenticator to the peer") [page 5];

- "a second value is set for data from the first processor to the second processor" (i.e. "The peer MUST

    send a Response packet in reply to a Request packet") [page 6].

Claim 38:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection

establishment process of a transmission control protocol comprising,

- "sending a request to establish a transmission session" (i.e. "The Request packet is sent by the

   authenticator to the peer. Each Request has a type field which serves to indicate what is being

   requested") [page 5];

- "receiving an authentication session request during the connection establishment process" (i.e. "The peer

   MUST send a Response packet in reply to a Request packet") [page 5];

- "conducting authentication session communications during the connection establishment process" (i.e.

   "The Request packet is sent by the authenticator to the peer") [page 5];

but they do not disclose,

- "one or more processors"

- "a network interface"

- "a computer-readable storage medium on which is stored instructions for causing the one or more

   processors to perform a method"

however, Mullen et al. do disclose,

- "a processor" [page 3 paragraph 0037];

- "the computer (40) is connected to a wide area network (32), such as the Internet" [page 3 paragraph

   0037];

- "memory" [page 3 paragraph 0037];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "one or more processors" and "a network interface" and "a computer-readable medium on which is

stored instructions for causing the one or more processors to perform a method," in the invention as disclosed

by L. Blunk & J. Vollbrecht for the purposes of having an apparatus for the method(s) to operate on.

Claim 39:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a

connection establishment process of a transmission control protocol, as in Claim 38 above, but L. Blunk & J.

Vollbrecht do not disclose,

-   "standard transmission control protocol (TCP) requests are issued"

however, Mullen et al. do disclose,

-   "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

    (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "standard transmission control protocol (TCP) requests are issued," in the invention as disclosed by

L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP,

thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 40:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a

connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

-   "a first portion of a standard transmission control protocol request includes a segment used in a three-

    way handshake" (i.e. "Additional Request packets MUST be sent until a valid Response packet is

    received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same

    Identifier value in order to distinguish them from new Requests") [page 9].

Claim 41:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

- "an authentication session request includes setting a value in a TCP segment header" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 42:

L. Blunk & J. Vollbrecht and Mullen et al. disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 39 above, further comprising,

- "a first value is set for a first type of communication session" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5];

- "a second value is set for a second type of communication session" (i.e. "The peer MUST send a Response packet in reply to a Request packet") [page 6].

Claim 46:

L. Blunk & J. Vollbrecht disclose a method for initiating an authentication session in a connection establishment process of a transmission control protocol between first and second processors communicating via a network, as in Claim 45 above, but they do not disclose,

- "sending a standard transmission control protocol (TCP) request"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "sending a standard transmission control protocol (TCP) request," in the invention as disclosed by L.

Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus

it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 47:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol between first and second processors

communicating via a network, as in Claim 46 above, but L. Blunk & J. Vollbrecht do not disclose,

- "the first portion of transmission control protocol data includes a request to establish a standard TCP

    connection"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol

    (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention

to include, "the first portion of transmission control protocol data includes a request to establish a standard TCP

connection," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for

PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art

to put these aspects in use together.

Claim 48:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol between first and second processors

communicating via a network, as in Claim 47 above, further comprising,

- "the first portion of transmission protocol data includes a segment used in a three-way handshake" (i.e.

    "Additional Request packets MUST be sent until a valid Response packet is received, or an optional

retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to

distinguish them from new Requests") [page 9].

Claim 49:

L. Blunk & J. Vollbrecht and Mullen et al. disclose a method for initiating an authentication session in a

connection establishment process of a transmission control protocol between first and second processors

communicating via a network, as in Claim 47 above, further comprising,

- "the authentication session request includes setting a value in a TCP segment header" (i.e. "The

    authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 51:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection

establishment process of a transmission control protocol comprising,

- "a client processor" (i.e. "peer - The other end of the point-to-point link; the end which is being

    authenticated by the authenticator") [page 3];

- "a server processor" (i.e. "authenticator - The end of the link requiring the authentication. The

    authenticator specifies the authentication protocol to be used in the Configure-Request during Link

    Establishment phase") [page 2];

- "requesting, with the client processor, to establish a transmission session" (i.e. "The Request packet is

    sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is

    being requested") [page 5];

- "creating, with the server processor, an authentication session item in a first portion of transmission

    control protocol data" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request

    has a type field which serves to indicate what is being requested") [page 5];

- "the authentication session item is used to start an authentication session" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5];

- "sending the first portion of transmission control protocol data from the server processor to the client processor during the connection establishment process" (i.e. "The Request packet is sent by the authenticator to the peer. Each Request has a type field which serves to indicate what is being requested") [page 5];

- "receiving the first portion of transmission control protocol data at the client processor" (i.e. "Responses MUST only be sent in reply to a received Request and never retransmitted on a timer. The Identifier field of the Response MUST match that of the Request") [page 5];

- "conducting authentication session communications" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5];

but they do not disclose,

- "a computer-readable storage medium on which is stored instructions for causing the one or more processors to perform a method"

however, Mullen et al. do disclose,

- "memory" [page 3 paragraph 0037];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "a computer-readable medium on which is stored instructions for causing the one or more processors to perform a method," in the invention as disclosed by L. Blunk & J. Vollbrecht for the purposes of storing information which may be executed.

Claim 52:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, but they do not disclose,

- "standard transmission control protocol (TCP) requests are issued"

however, Mullen et al. do disclose,

- "PPP is a widely used data link protocol for transmitting Transfer Control Protocol/Internet Protocol (TCP/IP) packets over dial-up telephone connections" [page 1 paragraph 0002" [page 1 paragraph 0002];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "standard transmission control protocol (TCP) requests are issued," in the invention as disclosed by L. Blunk & J. Vollbrecht since EAP is an authentication means for PPP and PPP is widely used with TCP/IP, thus it would be reasonable to expect one of ordinary skill in the art to put these aspects in use together.

Claim 53:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- "the first portion of a standard transmission control protocol request includes a segment used in a three-way handshake" (i.e. "Additional Request packets MUST be sent until a valid Response packet is received, or an optional retry counter expires. Retransmitted Requests MUST be sent with the same Identifier value in order to distinguish them from new Requests") [page 9].

Claim 54:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- "an authentication session request includes setting a value in a TCP segment header" (i.e. "The authenticator MUST transmit an EAP packet with the Code field set to 1 (Request)") [page 5].

Claim 55:

L. Blunk & J. Vollbrecht disclose an apparatus for initiating an authentication session in a connection establishment process of a transmission control protocol, as in Claim 51 above, further comprising,

- "a first value is set for a first type of communication session" (i.e. "The Request packet is sent by the authenticator to the peer") [page 5].

- "a second value is set for a second type of communication session" (i.e. "The peer MUST send a Response packet in reply to a Request packet") [page 6].

10.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over L. Blunk & J. Vollbrecht (RFC 2284) in view of W. Simpson (RFC 1994).

Claim 10:

L. Blunk & J. Vollbrecht disclose a method for providing authentication in a connection establishment process of a transmission control protocol, wherein a first processor attempts to establish a communication over a network, the method executing in a second processor, as in Claim 1 above, but do not disclose,

- "receiving a response from the first processor in response to sending the first portion of transmission control protocol data"

- "determining whether the response from the first processor indicates that the first processor will comply with the authentication session"

- "if the first processor will not comply with the authentication session then performing a substep of restricting access of the first processor"

however, W. Simpson does disclose,

-   "The peer responds with a value calculated using a "one-way hash" function" [page 3];

-   "The authenticator checks the response against its own calculation of the expected hash value. If the values match, the authentication is acknowledged" [page 3];

-   "otherwise the connection SHOULD be terminated" [page 3];

Therefore, it would have been obvious for one of ordinary skill in the art at the time of the applicant's invention to include, "receiving a response from the first processor in response to sending the first portion of transmission control protocol data" and "determining whether the response from the first processor indicates that the first processor will comply with the authentication session" and "if the first processor will not comply with the authentication session then performing a substep of restricting access of the first processor," in the invention as disclosed by L. Blunk & J. Vollbrecht for the purposes of having a challenge hand-shake authentication to verify a peer.

Response to Arguments

11.   Applicant's arguments filed 01/25/2008 have been fully considered but they are not persuasive.

-   The applicant's arguments "Each of the independent claims includes a limitation that is not disclosed by or made obvious in view of the prior art. For example, each independent claim recites an "authentication session item" that is "used to start an authentication session". The authentication session item is sent "during the connection establishment process". Note that L. Blunk & J. Vollbrecht does not disclose any actions occurring during the connection establishment process that start an authentication session. Rather, L. Blunk & J. Vollbrecht only show that a request for authentication may be made during a link

establishment phase. "If authentication of the link is desired, an implementation MUST specify the

Authentication-Protocol Configuration Option during Link Establishment phase." L. Blunk & J.

Vollbrecht at Section 1, second paragraph. "EAP does not select a specific authentication mechanism at

Link Control Phase, but rather postpones this until the Authentication Phase." L. Blunk & J. Vollbrecht

at Section 2, first paragraph, lines 3-5" have been carefully considered but are non-persuasive.

-   The examiner notes that as recited above the term "item" is equated with a request or information within

    a request and is covered by the rejections above. It is also noted that the usage of the phrase "during the

    connection establishment process" is relative and can be broadly interpreted as at any point in time as

    part of the connection establishment process. L. Blunk & J. Vollbrecht at the very least provides

    suggestion if not anticipation for "an authentication session item" (i.e. a request) and "during the

    connection establishment process" (i.e. "an implementation MUST specify the Authentication-Protocol

    Configuration Option during Link Establishment phase"). Additional parts of the L. Blunk & J.

    Vollbrecht disclosure provide at the very least suggestion if not anticipation for variations of EAP with

    authentication during link establishment.

Conclusion

12.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth

in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the

mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this

final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory

period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Oscar Louie whose telephone number is 571-270-1684. The examiner can normally be reached Monday through Thursday from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nasser Moazzami, can be reached at 571-272-4195. The fax phone number for Formal or Official faxes to Technology Center 2100 is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

          OAL
          05/13/2008
/KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135